CLIMATE ACTION PLAN

ZIONSVILLE

DECEMBER 2020

"Our Town has the collective ability to take meaningful and immediate steps toward the changes that will protect our futures."

–Emily Styron, Mayor
Zionsville, Indiana

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Indiana University Environmental Resilience Institute
This plan was developed with support from the Resilience Cohort, a program offered by the Environmental Resilience Institute (ERI). ERI is an initiative of the Indiana University Prepared for Environmental Change Grand Challenge.

INDIANA UNIVERSITY
ENVIRONMENTAL RESILIENCE INSTITUTE

ICLEI USA
Local Governments for Sustainability
This plan was developed with support from ICLEI USA in partnership with the Resilience Cohort.

ICLEI Local Governments for Sustainability USA

Prepared by the Town of Zionsville, Indiana and Madeline Miller

The Town of Zionsville would like to thank all community members who participated in surveys, virtual meetings, and other forms of engagement used to develop the Town's first Climate Action Plan.

An Invitation from Mayor Styron

Word's out – Zionsville is a great place to live, work, and do business. Our residential population is forecast to double in the next 30 years. Few areas in the country are experiencing this rate of population growth while taking a careful look at their greenhouse gas emissions. Our first Climate Action Plan focuses on strategies we can use to stabilize per-capita emissions. To realize the outcomes we hope to see, it's important that we all work together and take steps to protect our beautiful community. The Town is taking steps to do our part and your household and business can too – opt in to the curbside compost service, ride your bike to school and work, find out if solar energy can work for you, volunteer to serve on a town committee, advocate for more green areas and pathways.

For greatest impact, this plan needs regular review to monitor progress and update goals. One action recommended in this plan is the creation of a Sustainability Commission.

This citizen-led group will be charged with reviewing this plan, recommending strategies to move us forward on action items, and seeking out funding opportunities to support our efforts. Zionsville's Climate Action Plan points us in a shared direction and encourages local residents to chart a course that will sustain our natural environment.

Please join me in this critical work to protect our Town within a park.

Emily Styron, Mayor
Zionsville, Indiana

Executive Summary

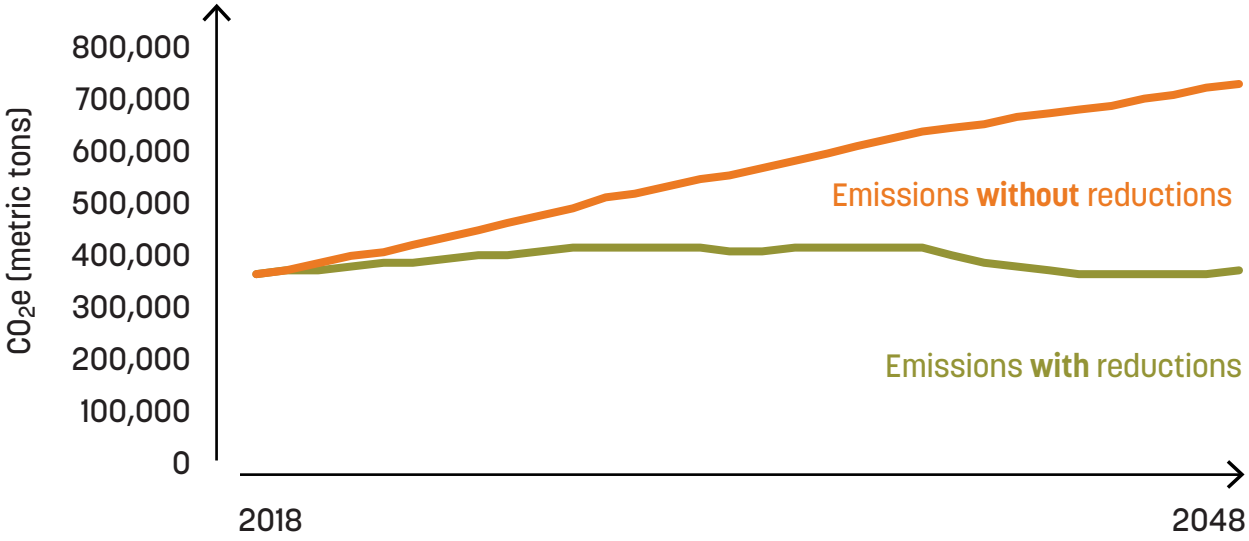
The Town of Zionsville, Indiana is taking steps to reduce local greenhouse gas emissions and promote sustainability among the community. Climate change is on track to change our lives and society drastically over the next several decades, and the Town is rising to the occasion in order to ensure that Zionsville is prepared for environmental change. Based on community-wide greenhouse gas emissions data from the year 2018, Zionsville worked with ICLEI (Local Governments for Sustainability, USA) and the Environmental Resilience Institute to project local greenhouse gas emissions through the year 2050. From here, the Town created this first edition of a Climate Action Plan to start mitigating greenhouse gases.

Greenhouse gas reduction strategies were designed to achieve the following goals:

- Promote access to clean energy and energy savings
- Promote green transportation
- Promote and provide additional methods of waste diversion
- Advance sustainability and climate resilience

Zionsville's goal is to keep emissions stable while the population continues to grow. Zionsville's efforts for greenhouse gas emissions reductions is demonstrated by the figure below.

Zionsville Greenhouse Gas Emissions



Every three years, the Town will provide residents with an update on progress. Additionally, new strategies and goals may be added as new opportunities arise and as old strategies are completed.

Introduction

Climate change and its impacts on the planet are perhaps some of the most pressing challenges that we will face in the 21st century. Over the past several decades, overwhelming evidence of anthropogenic (human-caused) climate change has become apparent in our everyday lives. Impacts that are already presenting considerable problems in central Indiana and the rest of the Midwest include increased flooding, increased number of days with dangerous heat levels, more extreme weather events, and decreased agricultural productivity. These negative effects place stress on our economy, lessen access to important natural resources, and exacerbate inequities for vulnerable groups of residents.

To manage these changes, the Town of Zionsville has identified strategic measures to reduce community-wide greenhouse gas (GHG) emissions. These strategic measures, an inventory of the Town's GHG emissions and their sources, and the Town's desired GHG reduction goals are all key components in this Climate Action Plan. Zionsville hopes that by implementing this plan, our community can greatly reduce its impact on the environment while setting an example of sustainable leadership among other Midwestern communities.

To begin the climate action planning process, Zionsville conducted a greenhouse gas inventory. A detailed outline of the GHG inventory data is located in the "Greenhouse Gas Inventory" section. Once the Town established the quantity of emissions and where they were coming from, Zionsville's projected population growth was used to estimate how the Town's cumulative emissions will change without any intervention. See more about emissions forecasting in the "Plan Development" section. The Town government used this information to work with the public and other stakeholders to pinpoint what the community could do to strategically reduce GHG emissions in Zionsville. The results of these efforts produced this Climate Action Plan.

The Town's GHG reduction initiatives are outlined in the "Reduction Strategies" section of this plan. The strategies are organized into one of four categories: Energy, Transportation, Solid Waste & Water, and Sustainability & Resilience – a more general category for actions that do

not directly impact emissions but will help with Zionsville's other sustainability efforts or help the Town prepare for climate change impacts. Each strategy contains the level of impact it will have on emissions (when applicable), what the cost range of implementation will be, and how we plan to implement it. This document is designed to evolve as technologies advance and the town's approach to greenhouse gas reductions matures. The Town government will likely update the strategies in this plan and add more strategies in future editions.

Many major cities across the country, including Indianapolis, have committed to achieving net zero community-wide GHG emissions by 2050. Reducing GHG emissions will be difficult for Zionsville because the Town is expecting rapid population growth. Between 2020 and 2050, the Town's population is projected to double. For this reason, Zionsville will quantify its progress by focusing on per capita GHG emissions rather than an overall emissions reduction. Once the population stabilizes, the Town will re-evaluate its greenhouse gas reduction strategies and goals to make plans for achieving an overall decrease in community-wide GHG emissions.

The Town's current goal is to keep GHG emissions steady as the population continues to grow; this will result in per capita emissions dropping by around 50% if the number of residents actually doubles between 2018 and 2050.

What is Climate Change?

Greenhouse gases (GHGs) such as carbon dioxide (CO2) prevent heat from leaving the atmosphere by trapping solar radiation. Naturally occurring GHGs are needed to keep the Earth at a livable temperature, but human activities are increasing the concentration of GHGs in our atmosphere, changing the global climate faster than our societies and ecosystems can adapt. The most significant contributor of GHG emissions is the burning of fossil fuels for transportation, electricity generation, and other purposes. Other activities such as water treatment and solid waste production also contribute to the high concentration of GHGs to the atmosphere. Collectively, the excess gases we produce intensify the natural greenhouse effect, causing global average surface and lower atmospheric temperatures to rise.

Climate Change & Zionsville

Indiana is already experiencing climate-related impacts that affect public health, the economy, wildlife, and the built environment. Excess GHG emissions are increasing the Earth's average ambient temperature, meaning that Zionsville and the rest of the state will experience more heat waves and more dangerously hot summer days and nights. The Indiana Climate Change Impacts Assessment (IN CCIA) coordinated by Purdue University's Climate Change Research Center states that Indiana's average ambient temperature has already increased by 1.2 °F since 1895. Hoosier scientists also project that Indiana temperatures will likely increase by another 5-6 °F in the next 30 years. This drastic change is already starting to shift the timing of seasons, cause warm months to become warmer, and cause cold months to be milder. Over the past few years, our state's researchers have started recording an increase in pests, a decrease in agricultural productivity, and loss of native species as a result of the shifting climate.

Increased heat stress from climate change will impact the health and livelihoods of Hoosiers. According to the IN CCIA, the increase in annual average temperature is already decreasing Indiana's crop yields. Smaller crop yields can negatively impact the Indiana economy and exacerbate food insecurity. Other impacts of greater heat stress include a projected increase in heat-related fatalities, longer allergy and tick seasons, and more ground-level ozone production. Purdue predicts that low-income individuals, the elderly, and children will be at higher risk for developing long-term health problems as a result of climate-change impacts on temperature and air quality in Indiana.

Another colossal climate-change impact in Indiana is increased precipitation and flooding. The IN CCIA cites that average annual precipitation has risen by 5.6 inches since 1895, and this increase is expected to grow as climate change accelerates. Increased precipitation can be dangerous for Zionsville's infrastructure by causing flooding and contributing to runoff pollution which can harm surrounding ecosystems. The Indiana University Environmental Resilience Institute's online tool, the Hoosier Resilience Index, shows that Zionsville as a whole already experiences 15 days of extreme precipitation per decade, but this could climb to 19 extreme events per decade as early as 2050.

Co-Benefits of Climate Planning

Many communities in the United States have taken responsibility for addressing climate change at the local level. Reducing fossil fuel use and promoting more sustainable transportation in the community can have many co-benefits that are separate from GHG reduction. The following benefits were considered in the creation of the Town of Zionsville's GHG reduction strategies.

Many of the actions in this plan will result in long-term cost savings. Promoting green building infrastructure, educating residents on home energy efficiency, and increasing access to clean, renewable energy can result in lower energy costs for Zionsville residents and workers. Increasing bike-ability and walkability of the Town can also reduce an individual's transportation costs.

Strategies that grow the local economy will focus on increasing the value of products, services, and experiences offered in Zionsville.

Many strategies in this plan will promote the creation and preservation of beautiful outdoor spaces. This in turn will keep Zionsville a beautiful place to live and protect local ecosystems.

Social equity is an important facet of sustainability and climate action. Communities of color and low-income communities are more likely to feel the impacts of climate change and other environmental problems first. This is why many of the strategies outlined in this plan strive to provide aid to vulnerable communities and make sure that other benefits of GHG mitigation are distributed fairly among Zionsville residents.

Many of the common actions taken for lowering GHG emissions simultaneously help improve local air quality, which comes with benefits to residents' health. Additionally, encouraging alternative forms of transportation such as bike-riding and walking can promote healthy lifestyles.

Some strategies in this plan call for the creation of programs that will benefit Zionsville residents and encourage public participation in sustainability and climate action efforts.

The Climate Planning Process

The Town of Zionsville began the climate planning process in January 2020 when it joined the 2020 Resilience Cohort, a group of Indiana local governments that receive assistance and training from Indiana University's Environmental Resilience Institute to start planning for climate change. The other Indiana communities participating in the 2020 Cohort were Carmel, Elkhart, Evansville, Fishers, Fort Wayne, Gary, Goshen, Michigan City, Richmond, and West Lafayette.

Before Zionsville could establish an emissions reduction goal or develop climate action strategies, the Town had to complete a greenhouse gas inventory. A GHG inventory quantifies the amount of GHG emissions that stem from various man-made sources in the community in a single year. Zionsville developed this plan using the results of its greenhouse gas inventory. The largest inventory categories highlight the sectors and sources that should be tackled first. A community-wide GHG inventory was completed in May of 2020 and the Town immediately began working on this Climate Action Plan.

Results from the GHG inventory are detailed in the following section.

Greenhouse Gas Inventory Summary

In 2020, the Town of Zionsville completed a GHG inventory that quantified community-wide emissions released in 2018. The data established a baseline to forecast how high the community's GHG emissions could be from the years 2020 to 2050 so the Town could figure out what GHG reduction strategies will be most effective for meeting our goals.

The six gases included in the GHG inventories are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and sulfur hexafluoride (SF_6). These GHGs have different global warming potentials (GWP), meaning they have different capacities for trapping heat and radiation in the atmosphere. Zionsville's 2018 GHG inventory reports emissions in CO_2e (CO_2 equivalent), which standardizes the measurements of each GHG into one unit based on the GWPs.

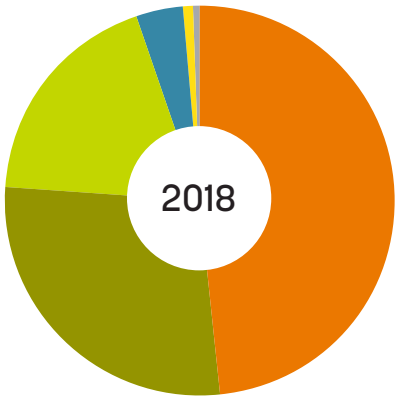
Global Warming Potential (GWP) of Greenhouse Gases

GREENHOUSE GAS	ABBREVIATION	100-YEAR GWP	LIFETIME (YEARS)
Carbon Dioxide	CO_2	1	12.5
Methane	CH_4	28	121
Nitrous Oxide	N_2O	265	13.5
Perfluorocarbons	PFCs	4,600	45
Hydrofluorocarbons	HFCs	1,300	14
Sulfur Hexafluoride	SF_6	22,800	3,200

Greenhouse Gas Inventory Summary

Zionsville emitted a total of **358,439 metric tons of CO_2e** in 2018 from the following sources:

SECTOR	CO_2e (metric tons)	PERCENTAGE
Residential Energy	173,971	48%
Transportation & Mobile Sources	99,225	28%
Commercial Energy	66,781	19%
Water & Wastewater	13,971	4%
Solid Waste	2,859	1%
Process & Fugitive Emissions	1,632	0%
TOTAL	358,439	



Zionsville's 2018 GHG inventory reports emissions in CO2e (CO2 equivalent), which standardizes the measurements of each GHG into one unit based on the GWPs.

RESIDENTIAL ENERGY (48%)

COMMERCIAL ENERGY (19%)

Homes, multifamily buildings, commercial buildings, and government buildings purchase electricity and natural gas from utility companies that burn fuels that release GHGs.

TRANSPORTATION & MOBILE SOURCES (28%)

Passenger vehicles, trucks, and the Town fleet use fuel that releases GHG emissions. Other mobile sources include gasoline powered lawn mowers, agricultural equipment, and other similar tools that require fuel.

WATER AND WASTEWATER (4%)

Municipal water systems emit GHGs when wastewater is treated.

SOLID WASTE (1%)

GHGs (mostly methane, CH4) are produced when trash and food waste break down in landfills.

PROCESS AND FUGITIVE EMISSIONS (<1%)

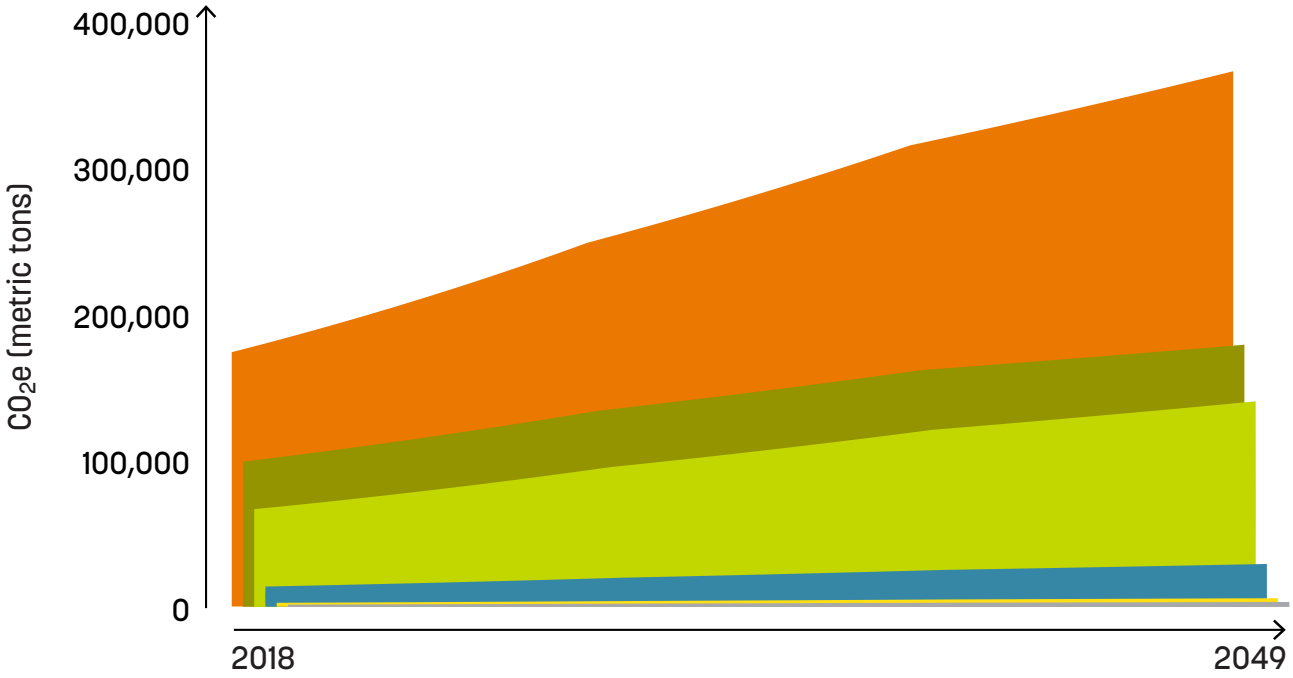
This accounts for GHGs emitted by faulty equipment or leakages and inefficiencies in other systems.

Plan Development

MODELING

The Town of Zionsville developed its 2018 GHG inventory and greenhouse gas reduction strategy using ICLEI's online ClearPath software. The tool facilitated the completion of emissions forecasts through the year 2050. The "Business as Usual" forecast shown below demonstrates future GHG emissions in Zionsville, taking the Town's population growth into account. The forecast functions as a baseline and assumes that no action will be taken to reduce emissions.

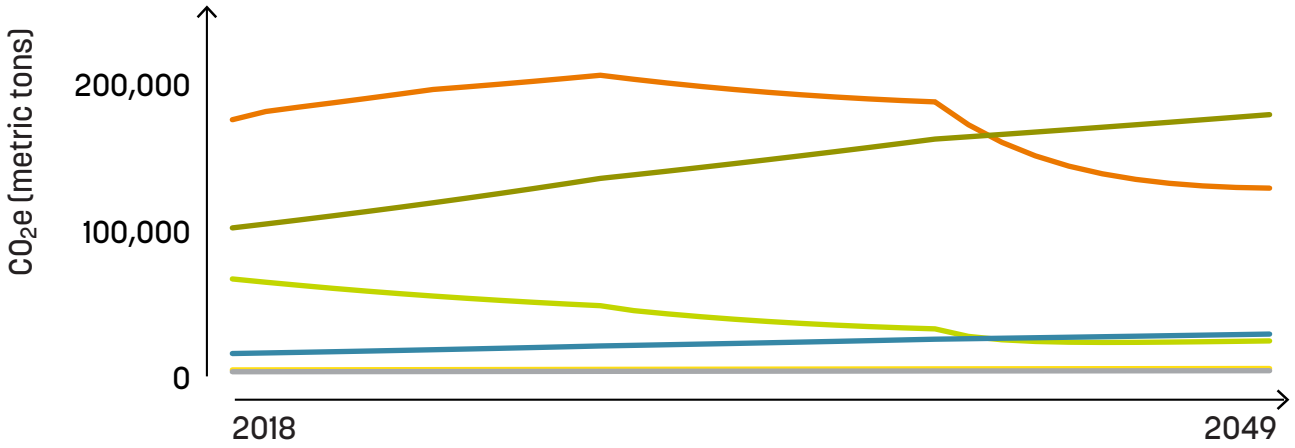
Zionsville Greenhouse Gas Forecast by Sector from 2018 to 2050



SECTOR	Annual CO_2e (metric tons) 2018	to	2049
Residential Energy	173,971	to	365,796
Transportation & Mobile Sources	99,225	to	179,098
Commercial Energy	66,781	to	140,416
Water & Wastewater	13,971	to	29,376
Solid Waste	2,859	to	6,011
Process & Fugitive Emissions	1,632	to	3,431
TOTAL	358,439	to	724,128

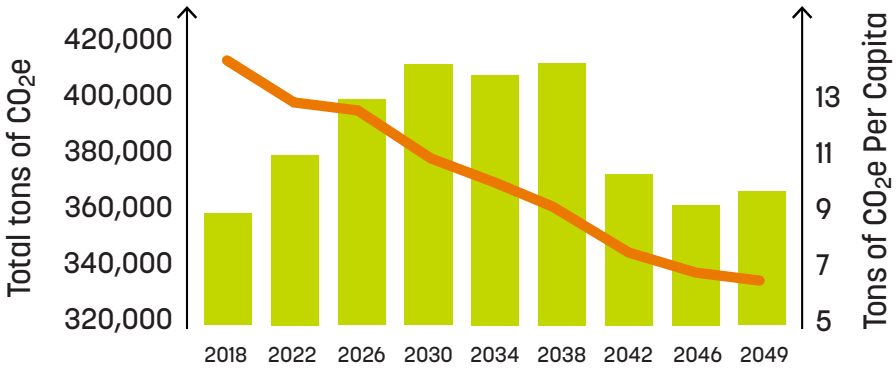
Using this baseline forecast, Zionsville created a planning scenario in ClearPath to estimate the GHG reductions that can be achieved with each action described in this plan. The planning scenario graph, shown below, displays the potential collective reductions that Zionsville can achieve with this Climate Action Plan. It is important to note that the projected GHG reductions are the collective effort of the climate action strategies outlined in this plan and the efforts of local energy providers such as Duke to achieve carbon neutrality by 2050.

Zionsville Projected Greenhouse Gas Reductions



SECTOR	Annual CO_2e (metric tons) 2018	to	2049
Residential Energy	173,971	to	126,216
Transportation & Mobile Sources	99,225	to	178,301
Commercial Energy	66,781	to	22,590
Water & Wastewater	13,971	to	29,376
Solid Waste	2,859	to	6,011
Process & Fugitive Emissions	1,632	to	3,431
TOTAL	358,438	to	365,925

The figure below shows the per capita impact that these same strategies have on GHG emissions.



Looking at the data from a per capita standpoint makes it easier to visualize the gravity of the impact given the high amount of population growth that the Town of Zionsville is expecting.

Total Emissions

Per Capita Emissions

COMMUNITY ENGAGEMENT

Zionsville residents and workers were invited to participate in multiple surveys pertaining to this project. In June 2020, the Town released a brief climate and sustainability interest survey to understand how the community feels about climate change and its impacts. The survey also asked for specific recommendations for what should be included in the Climate Action Plan. This short survey received 359 total responses. Feedback was used to help inform a list of potential GHG reduction strategies that were distributed in the form of five larger surveys in the fall of 2020.

The longer surveys were organized into five different categories: transportation, energy (general), residential energy, solid waste & wastewater, and general sustainability strategies. The rationale behind issuing five separate surveys was to encourage higher response rates. In total, the Town asked for feedback on 83 potential reduction and sustainability strategies; dividing the survey questions into more specific categories was intended to make the process more manageable for residents. Residents were invited to take any survey that they were interested in; taking all five was not required. In each survey, respondents were asked to rate their approval for a series of strategies on a scale of 1 to 5. Each survey had at least one short answer question for respondents to provide more detailed suggestions. These surveys fielded a total of 1,101 responses.

FINALIZING THE PLAN

Upon completion of the survey analysis, a draft list of strategy ideas was assembled based on feedback and suggestions from residents. The steering committee for this climate action plan was invited to share ideas, help develop the individual strategies, and identify partnerships and resources that will allow the Town of Zionsville to successfully implement the plan. The plan was edited by both the steering committee and staff at Indiana University's Environmental Resilience Institute.

This document is the Town's first iteration of the Climate Action Plan. Every three years, the Town government and its sustainability commission (which the Town plans to establish by the end of 2021) will provide updates on the plan's progress, incorporate new sustainability and GHG reduction strategies, and update older strategies as needed.

Reduction Strategies

Zionsville's GHG reduction strategies are organized by topic in the following section. For each strategy, the timeframe, investment, and co-benefits are displayed under the strategy name. This is followed by a more detailed description of the strategy's purpose and what parties within the government will be responsible for taking the lead on implementation.

ENERGY

Energy use makes up around 67% of Zionsville's GHG emissions for the year 2018. 48% of these emissions stemmed from residential energy use while the remaining 19% came from energy used by either commercial or government buildings. Energy-related emissions can be mitigated by using greener energy sources that release fewer GHG emissions into the atmosphere and by adopting wiser practices and technologies to reduce overall energy use.

GOAL 1: PROMOTE ACCESS TO CLEAN ENERGY AND ENERGY SAVINGS

Strategy 1.1: Understand and address HOA restrictions on rooftop solar technology

Timeframe:  **Investment:**  **Co-benefits:** 

Many Homeowners Associations across Zionsville have full or partial restrictions of rooftop solar panels. This presents a huge barrier for property owners who would like to reduce their personal carbon footprints by having it installed on their houses. The Town of Zionsville would like to work with HOAs that have these bans on solar technology to convince them to lift any restriction that inhibits a resident's ability to opt for a green energy alternative on their property if desired.

Implementation: Office of the Mayor, Planning & Economic Development

Strategy 1.2: Review existing policies that might inhibit renewable energy options

Timeframe:  **Investment:**  **Co-benefits:** 

The Town will review policies that may prevent residents and businesses from installing or accessing renewable energy options such as solar. Additionally, Zionsville will seek guidance from SolSmart, a program that assists local governments with expanding renewable energy in their communities.

Implementation: Office of the Mayor

Strategy 1.3: Promote enrollment in solar co-ops

Timeframe:  **Investment:**  **Co-benefits:** CE COMMUNITY ENGAGEMENT CS COST SAVINGS

In the summer of 2020, the non-profit organization Solar United Neighbors launched Boone County's first ever solar co-op. Using the co-op model, residential homes and businesses can receive free education on solar energy and free customized quotes from a number of potential solar installers. This provides people with an opportunity to access solar technology at a discounted, bulk price as opposed to the price one might get by contacting an installer directly. In the future, the Town of Zionsville would like to promote formation of new solar co-ops and connect residents with Solar United Neighbors to encourage all residents who are willing and able to adopt solar technology. Further, the Town will seek out any new potential partnerships that can help make solar more accessible to those with financial barriers.

Implementation: Office of the Mayor, Planning & Economic Development, Public Information Officer

Strategy 1.4: Obtain estimates for installing solar panels at Town Hall

Timeframe:  **Investment:**  **Co-benefits:** CS COST SAVINGS

In October 2020, Town Hall joined the Solar United Neighbors' Boone County solar co-op to examine the feasibility of getting solar panels installed on the building. The Town will seek multiple estimates for solar panels. Once estimates are received, a cost-benefit analysis will be performed to help identify the right time to do these potential installations. The Town of Zionsville may enroll other government buildings in a future Boone County co-op.

Implementation: Office of the Mayor, Planning & Economic Development

Strategy 1.5: Advocate for local utility services to transition to renewable energy sources

Timeframe:  **Investment:**  **Co-benefits:** PH PUBLIC HEALTH

Zionsville residents and businesses get their electricity from either Duke Energy, Boone REMC, Indianapolis Power and Light, or Lebanon Utilities. The Town plans to open up and continue dialog with these companies with goals to find opportunities to decrease the Town's collective carbon footprint.

Implementation: Office of the Mayor

Strategy 1.6: Connect Zionsville residents with energy-saving programs and initiatives through utilities

Timeframe: 

Investment: 

Co-benefits: CE COMMMUNITY ENGAGEMENT; CS COST SAVINGS; IE INCREASED EQUITY

The Town of Zionsville will promote energy- and cost-saving programs and opportunities offered by the various energy providers in the area. Educating residents and businesses on potential rebates, free or discounted energy audits, and renewable energy programs that are offered by their electricity providers can help people all over Zionsville save money and reduce energy use. As the upfront expense of these opportunities can be burdensome, the Town will ask utilities to consider on-bill financing as part of their incentive programs.

Implementation: Office of the Mayor, Planning & Economic Development, Marketing

TRANSPORTATION

Emissions from transportation and other mobile source emissions made up 25% of Zionsville's 2018 GHG inventory. This category includes emissions from community-wide vehicle use and emissions that stem from agricultural, lawn care equipment, and other tools that run on gasoline. As Zionsville's population continues to grow and more vehicles are on the road within Town limits, the Town would like to explore new ways to promote alternative forms of travel to keep mobile emissions from skyrocketing.

GOAL 2: PROMOTE GREEN TRANSPORTATION IN ZIONSVILLE

Strategy 2.1: Anti-Idling Campaign

Timeframe: 

Investment: 

Co-benefits: PH PUBLIC HEALTH; CS COST SAVINGS

Zionsville will adopt a no-idle policy for all municipal vehicles. This will save the Town money and help improve local air quality. In the future, the Town would like to form a partnership with schools and local businesses to address vehicle idling around Zionsville.

Implementation: Office of the Mayor, Town Council

Strategy 2.2: Apply for grant funding to install electric vehicle stations in Town

Timeframe:  **Investment:**  **Co-benefits:** PH PUBLIC HEALTH; NE NATURAL ENVIRONMENT

Zionsville would like to examine the possibility of setting up some electric vehicle (EV) charging stations in town. To help mitigate the costs, the Town will apply for grant funding to help implement this project. Making EVs and other alternative fuel vehicles easier to use within the Town can help address vehicle-related GHG emissions.

Implementation: Office of the Mayor, Public Works

Strategy 2.3: Make roundabouts the primary choice for intersections

Timeframe:  **Investment:**  **Co-benefits:** PH PUBLIC HEALTH; NE NATURAL ENVIRONMENT; CS COST SAVINGS

Roundabouts can help reduce vehicle idling and improve traffic flow when the conditions are correct for installing them. The Department of Public Works currently approaches intersections that warrant a signal by first considering a roundabout over other types of signals. If there are no reasons for the intersection to not become a roundabout, a roundabout will be installed. The Town will implement a policy to continue this practice.

Implementation: Office of the Mayor, Town Council, Public Works

Strategy 2.4: Optimize pathway connectivity in Zionsville

Timeframe:  **Investment:**  **Co-benefits:** PH PUBLIC HEALTH; IE INCREASED EQUITY

Zionsville will work to make biking and walking an easier and safer experience throughout town. To do this, the Town will strive to find the best options for connecting the west side of Zionsville to the downtown area and complete existing pathways projects. More specifically, the Town will strive to connect older and more remote neighborhoods to the rest of Zionsville to create a safer pedestrian experience for all community members. Creating safe pathways and promoting their use throughout town can promote outdoor recreation and help residents cut down on vehicle use. Additionally, Zionsville wants to maintain and improve its bike friendly status and achieve walk friendly status.

Implementation: Public Works, Planning & Economic Development, Parks & Recreation, Pedestrian Mobility Advisory Committee

Strategy 2.5: Conduct municipal fleet analysis and create a transition plan

Timeframe:  **Investment:**  **Co-benefits:** PH PUBLIC HEALTH; IE INCREASED EQUITY

Zionsville will hire a consultant to perform a government-owned fleet analysis that will help the Town find more efficient, low emission vehicle options that fit its needs. Not all municipal vehicles may be candidates for electric, hybrid, or other more efficient alternatives, but the Town would like to transition all possible vehicles to alternative fuel sources by 2026. Transitioning the Town fleet will reduce the local government's GHG emissions and reduce fuel and maintenance costs over time.

Implementation: Office of the Mayor, third-party consultant

SOLID WASTE

Local emissions from the breakdown of trash and food waste comprised around 1% of Zionsville's 2018 GHG inventory. Although this number may seem small, the actions in this section are also designed to address food insecurity and create new ways to make reducing waste more convenient for Town residents and workers. Waste reduction efforts will, in turn, help foster more sustainable lifestyles.

GOAL 3: PROMOTE AND PROVIDE ADDITIONAL METHODS FOR WASTE DIVERSION THROUGHOUT ZIONSVILLE

Strategy 3.1: Bring opt-in, curbside composting to Zionsville

Timeframe:  **Investment:**  **Co-benefits:** PH PUBLIC HEALTH; NE NATURAL ENVIRONMENT; CE COMMMUNITY ENGAGEMENT

Zionsville will soon create an opportunity for steeply discounted curbside composting service to town in partnership with Earth Mama Compost in Indianapolis. For a price of $10 monthly, residents can opt-in to receive a 5-gallon tote and have compostable waste picked up at the curb biweekly. This opportunity will provide an easy and affordable way for residents to reduce waste. As this partnership moves forward, Zionsville would like to find additional ways to make enrollment in curbside composting more accessible; this may include the ability to gift or donate a membership to another Zionsville resident.

Implementation: Office of the Mayor

Strategy 3.2: Launch a recycling and waste reduction education campaign

Timeframe: 

Investment: 

Co-benefits: 

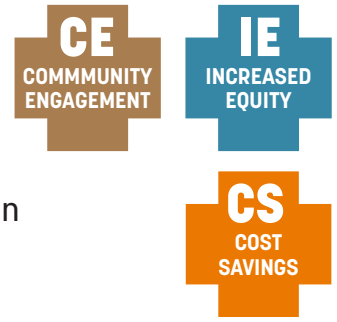
The Town will provide education to residents and businesses to help the community recycle more effectively and reduce waste overall. Educational content will include what materials can be recycled, what happens to recycled materials, and how to opt for reusable products rather than disposable ones.

Implementation: Parks & Recreation

Strategy 3.3: Launch a community-wide freecycling event

Timeframe: 

Investment: 

Co-benefits: 

Currently, Zionsville holds an annual "large trash" day in which residents can leave items that are too big for curbside trash service outside for pickup. After the pandemic has subsided, the Town would like to host an event for residents to drop off or take items such as furniture or appliances. At the end of the event, the remaining items will be donated to local re-use organizations or hauled away as large trash. This is intended to provide the community with an opportunity to give new life to items that would otherwise be thrown out.

Implementation: Office of the Mayor, Parks & Recreation, Public Works

Strategy 3.4: Identify a recycling drop-off station

Timeframe: 

Investment: 

Co-benefits: 

Currently, some areas of Zionsville do not have access to the curbside municipal recycling service. To provide these residents with an opportunity to recycle, the Town will identify a central site for people to drop off their recyclable items to be picked up along with the rest of the curbside recycling.

Implementation: Public Works

Strategy 3.5: Place recycling containers next to trash cans in public areas

Timeframe: 

Investment: 

Co-benefits: 

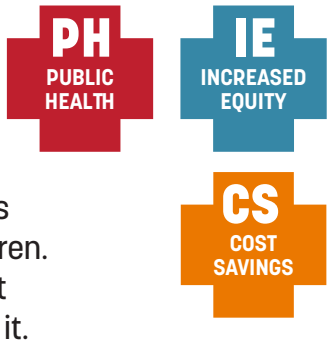
To help divert recyclable material from the waste stream, single stream recycling bins will be placed next to many of the trash cans in town. To prevent contamination, appropriate signage will be included to show what materials can be discarded in the public recycling bins.

Implementation: Parks & Recreation, Public Works

Strategy 3.6: Find ways to support local pantries and food rescue programs

Timeframe: 

Investment: 

Co-benefits: 

According to the national non-profit Feeding America, food insecurity affects nearly 900,000 Hoosiers. This, in turn, affects one in every six Hoosier children. The Town of Zionsville wants to find ways to support local organizations that rescue food or accept food donations for distribution to residents who need it. Rescuing food can lead to decreased food waste, but more importantly, addressing local food insecurity is vital for creating a socially equitable and sustainable community.

Implementation: Office of the Mayor

SUSTAINABILITY & RESILIENCE

This section of the plan is dedicated to strategies that may not impact GHG emissions directly but will help the Town of Zionsville progress towards being a more sustainable community or help residents withstand some of the future impacts of climate change.

GOAL 4: ADVANCE SUSTAINABILITY AND CLIMATE RESILIENCE IN ZIONSVILLE

Strategy 4.1: Establish a Sustainability Commission

Timeframe: 

Investment: 

Co-benefits: 

The Town will develop a sustainability commission by the end of 2021. Duties of the commission will include benchmarking progress on the Town of Zionsville's sustainability and climate initiatives, identifying grant funding opportunities, developing additional climate and sustainability initiatives to be adopted in later versions of the Town's Climate Action Plan, and promoting sustainability in Zionsville. The Town would like to seek out individuals from underrepresented populations to serve on the Commission to help properly address issues of equity. Voting members of the sustainability commission will be appointed by the Town Council and the Mayor and serve a two-year, renewable term. The school district will appoint three students to serve in a non-voting capacity for a one-year term.

Implementation: Office of the Mayor, Town Council

Strategy 4.2: Provide sustainability and climate education to residents

Timeframe: 

Investment: 

Co-benefits: 

The Zionsville Parks & Recreation department will provide education regarding energy efficiency, the benefits of native plants, water conservation, and other similar topics. The goal of this strategy is to inspire sustainable habits and provide climate knowledge to community members.

Implementation: Parks & Recreation

Zionsville's Existing Sustainability Practices and Projects

Prior to the adoption of this climate action plan, the Town of Zionsville already had several sustainability-related projects and practices in place. These existing initiatives and designations are included below to promote awareness of the Town's previous work and show how sustainability and climate action fits into government operations.

Energy Efficiency in Town Hall

Co-benefits: CS COST SAVINGS

Zionsville Town Hall opened in 2017. The building is 42,600 square feet and is fully outfitted with motion activated LED lights and energy efficient windows known as "Low-E". Additionally, the building was designed with the most current insulation design standards and contains low-flow faucets and toilets.

Waste Diversion

Co-benefits: PH PUBLIC HEALTH

The Town provides brush and limb collection twice each year. Unbagged leaves are composted and diverted from landfills. Brush, limb, and leaves are all taken to GreenCycle after materials are mulched using Town machines upon pick-up. GreenCycle then recycles this material through various methods. In 2019, the Town delivered 251 tons of material:

- 55 loads of chips, which is 550 yards or 138 tons
- 2 loads of brush, which is 12 yards or 2 tons
- 98 loads of leaves, which is 1,010 yards or 101 tons

As of October 9, 2020, the Town delivered 57 loads of wood chips to GreenCycle which equates to 589 yards or 147 tons.

Annual Tox-Drop and Electronics Recycling Event

Co-benefits: CE COMMMUNITY ENGAGEMENT

Zionsville hosts the Boone County Solid Waste Management District's annual household hazardous waste disposal and electronics recycling event at the Municipal Services Building. In 2020, they serviced 591 vehicles and collected 11 tons of household hazardous waste and 10 tons of electronics.

Streetlight Replacement

Co-benefits: CS COST SAVINGS

The Department of Public Works replaces all burnt out streetlights with LEDs. At the end of 2020, they had replaced 150 of 261 lights. In addition, Parks and Recreation has converted many of the parking lot lights to LEDs.

Efficient Golf Carts

Co-benefits: CS COST SAVINGS

The Parks Department is investing in new, fuel efficient golf carts for the 2021 season. The old fleet of thirty golf carts, purchased in 2009, averaged 7 MPG and were refueled weekly. The new golf carts average between 35-40 MPG and will be refueled monthly. The updated golf carts will be able to drive 200 miles per tank versus 40 miles per tank. In addition to vastly improved fuel economy, the Town will save on the labor of refueling the carts.

Creekside Corporate Park

Co-benefits: NE NATURAL ENVIRONMENT, PH PUBLIC HEALTH

A forward-thinking plan for future development resulted in the preservation of 25 acres within a 42-acre business park. The area includes a one-mile paved trail through undeveloped natural areas adjacent to the Creekside Corporate Park. More than one-third (38%) of the property is being preserved as woodlands. The area was created with low impact development for stormwater, meaning very little stormwater leaves the property. This feature was integral to the 2017 award from the White River Alliance for Excellence in Sustainable Design. Low impact development also focuses on cleansing water at the source by using rain gardens, native plants, and drainage swales to manage stormwater without detention ponds. Creekside Corporate Park received the Merit Award for Design from the American Council of Engineering Companies in 2018.

Town Council's Resolution to Call for Social Justice

Co-benefits: IE INCREASED EQUITY

Following the death of George Floyd in Minneapolis, Minnesota on May 25, 2020, Zionsville Town Council unanimously passed a resolution to condemn racism, assert that Black lives matter, and reaffirm that there is a place in Zionsville for all people regardless of "race, religion, color, sex, national origin, ancestry, sexual orientation, gender identity, disability, or familial, veteran or military status." This resolution serves as a formal commitment to social justice within the community.

Bicycle Friendly Community

Co-benefits: IE INCREASED EQUITY; PH PUBLIC HEALTH

In 2018, the League of American Bicyclists recognized Zionsville with a Bronze level Bicycle Friendly Community (BFC) award, joining 61 towns and cities in 27 states with this prestigious award. The Bronze level BFC award recognizes Zionsville's commitment to improving conditions for bicycling through investment in bicycling promotion, education programs, infrastructure and pro-bicycling policies.

Tree City USA

Co-benefits: NE NATURAL ENVIRONMENT; PH PUBLIC HEALTH

The Town of Zionsville was named by the Arbor Day Foundation as a Tree City USA community for their commitment to urban forestry. This year (2020) is the 16th consecutive year that Zionsville has earned this national honor from the Arbor Day Foundation, the nation's largest nonprofit organization dedicated to planting trees. To become a Tree City USA community, Zionsville had to meet all four standards: have a tree board or department, a tree-care ordinance, a community forestry program with annual expenditures of at least $2 per capita, and an Arbor Day observance and proclamation.

National Wildlife Federation Certifications

Co-benefits: NE NATURAL ENVIRONMENT

Zionsville was certified by the Community Wildlife Habitat in 2000. Further, Zionsville is a member of the Leadership Circle for the Mayors' Monarch Pledge.

Plan Implementation

The Town Council and Mayor will receive this plan before the end of 2020. The steering committee is hopeful the council will consider a resolution to adopt the Climate Action Plan and will work in good faith towards these strategies. Additionally, the Town of Zionsville is applying to host an IU student for the summer of 2021. If funded, this "Climate Fellow" will assist with the implementation of these strategies during their 10-week assignment with the Town of Zionsville.

Future Directions

This Climate Action Plan and its set of GHG reduction strategies are only the first step towards sustainability. In the future, the Town would like to adopt more strategies as opportunities arise and as existing projects are accomplished. Every three years, the Town will share a progress update and update the strategy list. Here are some potential ideas to explore in the near future:

Incentivize Green Buildings and Sustainable Development

- Make sustainability a priority when revisiting zoning ordinances
- Create a program that incentivizes LEED certification or exceeding efficiency standard require by Indiana State building code
- Examine possibility of transitioning all government and school buildings to clean, renewable energy

Waste Diversion

- Examine possibility of composting food waste in Zionsville schools
- Create a food rescue program in Zionsville schools
- Expand the curbside composting program to serve more residents
- Find ways to reduce single-use plastics in Town and in schools

Thank you for your interest in our Town's Climate Action Plan.

We can do this. Together.

ZIONSVILLE